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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,324	01/24/2002	Christopher W. Rahn	016276-9033	2909

23585 7590 06/23/2003

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EXAMINER

ADDIE, RAYMOND W

ART UNIT PAPER NUMBER

3671

DATE MAILED: 06/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application N .

10/056,324

Applicant(s)

RAHN ET AL.

Examiner

Raymond W. Addie

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1. 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Objections*

1. Claim 3 is objected to because of the following informalities:

Line 3, the phrase "and one of are each spaced" is missing a phrase or a word.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 112*

2. Claim 20 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a generally horizontal 1<sup>st</sup> axis extending generally perpendicular to a vehicle centerline, does not reasonably provide enablement for the first axis being generally disposed within a vertical plane. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. As clearly disclosed in the application, the 1<sup>st</sup> axis is horizontal and perpendicular to a longitudinal centerline of the vehicle, in order to adjust the angle of attack and hence the thickness of the material mat being laid. Therefore, it is indefinite as to how the 1<sup>st</sup> axis can be generally disposed within a common vertical plane, since there is no vertical component to the 1<sup>st</sup> axis.

**For examination purposes:** The above cited limitation, requiring the 1<sup>st</sup> axis to be in a vertical plane, is not given patentable weight and the 1<sup>st</sup> axis is seen to be disposed in a horizontal plane.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 12, 20 recite the phrase "when the 1<sup>st</sup> screed plate pivotably displaces about the 1<sup>st</sup> axis, the second screed plate pivotably displaces with respect to the connective member while a distance between the 1<sup>st</sup> and 2<sup>nd</sup> ends of the connective member remains substantially constant".

It is unclear as to how or what is causing the 2<sup>nd</sup> screed plate to be pivotably displaced.

The only connective member, capable of pivotably displacing the 2<sup>nd</sup> screed plate, is claimed to be non-extending and/or non-retracting during the claimed movement of both screed plates.

Hence, the questions beckon: about which axis, 2<sup>nd</sup> or 3<sup>rd</sup>, is the 2<sup>nd</sup> screed plate pivoting about? What is providing the necessary force to displace the 2<sup>nd</sup> screed plate? What is providing the necessary force to displace the 1<sup>st</sup> screed plate about the 1<sup>st</sup> axis?

**For examination purposes** the claimed limitation is interpreted to require the 2<sup>nd</sup> screed plate to pivot about the 3<sup>rd</sup> axis, which is collinear with the 1<sup>st</sup> axis, about which the 1<sup>st</sup> screed plate is rotatably displaceable.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgin # 3,782,844 in view of Johanpeter # 6,273,636.

Burgin '844 discloses a screed assembly (12) intended for use with a paving vehicle, intended for use in forming a mat of paving material upon a base surface, the screed assembly comprising:

A frame (16, 54, 68, 70) able to be connected with the vehicle.

A 1<sup>st</sup> screed plate (60), movably connected with the frame (at 68) so as to be rotatably displaceable about a 1<sup>st</sup> axis, to adjust the angle of attack of the screed plate.

See col. 3, Ins. 27-col. 4, ln. 14.

What Burgin '844 does not disclose is the use of a 2<sup>nd</sup> screed plate.

However, Johanpeter '636 teaches an edge-forming device for a screed assembly (1) comprising:

1<sup>st</sup> and 2<sup>nd</sup> screed plates (3, 14) having 1<sup>st</sup> and 2<sup>nd</sup> working surfaces (4, 15),

respectively. Said screed plate (14) being movably connected with the 1<sup>st</sup> screed plate (3), so as to be rotatably displaceable about 1<sup>st</sup> and 2<sup>nd</sup> axes that are perpendicular to

one another, in order to adjust the angle of attack about a 1<sup>st</sup> axis and to adjust the cross-slope/crown of the roadway being formed.

A plurality of connective members (16/48) having 1<sup>st</sup> and 2<sup>nd</sup> ends. The 1<sup>st</sup> end being connected to a frame (12/46) the 2<sup>nd</sup> end being pivotably connected to the screed plate (14) and further being linearly displaceable from the 1<sup>st</sup> end.

Such that when the 1<sup>st</sup> screed plate rotates about the 1<sup>st</sup> axis (to adjust the angle of attack), the 2<sup>nd</sup> screed plate (14) pivotably displaces with respect to at least 2 connective members, while a distance between the 1<sup>st</sup> and 2<sup>nd</sup> ends of said at least 2 connective members (16/48) remains substantially constant. See col. 3, ln. 23-col. 4, ln. 5; col. 5, lns. 14-24, col. 5, lns. 46-62, col. 6, lns. 50-col. 7, ln. 10; col. 8, lns. 45-65.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the screed assembly of Burgin, with a 2<sup>nd</sup> screed plate, as taught by Johanpeter, in order to form inclined shoulders and/or crowned roadways, as reasonably suggested by Johanpeter.

In regards to Claims 4, 5, 14 Burgin discloses the paving vehicle has a generally horizontal, longitudinal centerline, and that the axis (at 68) is generally horizontal and extends generally perpendicular to the vehicle center line, when the frame (16, 54, 68, 70) is connected with the vehicle. What Burgin '844 does not disclose is the use of a 2<sup>nd</sup> screed plate.

However, Johanpeter '636 teaches an edge-forming device for a screed assembly (1) comprising:

1<sup>st</sup> and 2<sup>nd</sup> screed plates (3, 14) having 1<sup>st</sup> and 2<sup>nd</sup> working surfaces (4, 15), respectively. Said 2<sup>nd</sup> screed plate (14) being movably connected with the 1<sup>st</sup> screed plate (3), so as to be rotatably displaceable about a 2<sup>nd</sup> axis, via connecting members (16), that is perpendicular to a longitudinal centerline of the vehicle, in order to adjust the cross-slope/crown of the roadway being formed. See col. 10, Ins. 12-37, col. 10, Ins 50-col. 11. In. 55.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the screed of Burgin '844 with an edge-forming device, as taught by Johanpeter, in order to form stepped and tapered shoulders for roadways, as reasonably suggested by Johanpeter, see col. 5, Ins. 50-col. 6, In. 49.

In regards to claims 6-8, 15-17 Burgin discloses a screed assembly rotationally mounted to a paving vehicle about a 1<sup>st</sup> axis, (at 68), in order to adjust the thickness of the material mat being laid upon a roadway base, but does not disclose the use of a 2<sup>nd</sup> screed plate. However, Johanpeter teaches a screed assembly having 1<sup>st</sup> and 2<sup>nd</sup> screed plates (3, 15), such that the 2<sup>nd</sup> screed plate rotates about a 2<sup>nd</sup> axis, parallel to a longitudinal centerline of the paving vehicle, in order to adjust a slope angle between the 1<sup>st</sup> and 2<sup>nd</sup> screed plates, in order to form a material mat that has an angled section (T), with respect to an upper surface of the remaining section (M) of material mat.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the screed of Burgin '844 with an edge-forming device, as taught by Johanpeter, in order to form stepped and tapered shoulders for roadways, as reasonably suggested by Johanpeter, see col. 5, Ins. 50-col. 6, ln. 49; col. 11, Ins. 1-55.

In regards to claims 9-11, 18, 19 Burgin discloses essentially all that is claimed, as put forth with respect to claim 1, except for the use of a 2<sup>nd</sup> screed plate. However, Johanpeter, teaches an edge forming screed plate (14) for use with a main screed (6) for forming a tapered edge on a roadway. Said edge forming screed plate (14) further comprising: A connective member in the form of a hydraulic cylinder (col. 9, ln. 43); a self-aligning pivot device, including: A 1<sup>st</sup> portion (42) attached to a 2<sup>nd</sup> end (17b) of the screed plate (14) and a 2<sup>nd</sup> portion (75) attached to the connective member second end (52) and movably attached to the 1<sup>st</sup> portion. Each pivot portion (42/75) being rotatably displaceable with respect to the other portion at least partially about a 3<sup>rd</sup> and 4<sup>th</sup> axes that are perpendicular to one another. See col. 8, Ins. 60-64. Johanpeter further teaches the connecting members (16) adjust the 2<sup>nd</sup> screed plate (14) independently of the 1<sup>st</sup> screed plate (3). Hence, it is obvious that when the 1<sup>st</sup> screed plate (3) is rotatably displaced about a 1<sup>st</sup> axis, for adjusting the angle of attack and hence the thickness of the mat, the 2<sup>nd</sup> pivot portion displaces rotatably with respect to the 1<sup>st</sup> pivot portion about said 3<sup>rd</sup> axis, such that the connective member 2<sup>nd</sup> end (52)



remains substantially stationary with respect to the connective member 1<sup>st</sup> end (50), since the 2<sup>nd</sup> screed plate (14) is moved independently of the main screed (6). See col. 8, ln. 45-col. 9, ln. 13.

In regards to Claim 12 Burgin in view of Johanpeter discloses essentially all that is claimed, as put forth with respect to Claim 1 above, although Burgin does not disclose the use of a 2<sup>nd</sup> screed plate. However, Johanpeter further discloses the edge-forming device is vertically, linearly displaceable, as well as pivotably displaceable via a plurality of connecting members (16). Each connecting member (16) being independently extendable/retractable to raise or lower a portion of the 2<sup>nd</sup> screed plate (14) and that the edge forming device is independently movable with respect to the main screed (6). Hence, it is obvious, that when the 1<sup>st</sup> screed plate (3) rotates about a 1<sup>st</sup> axis to adjust the angle of attack and the thickness of the mat being laid; the 2<sup>nd</sup> screed plate (14) can also be pivoted about an axis that is collinear with the 1<sup>st</sup> axis, when the 1<sup>st</sup> and 2<sup>nd</sup> screed plates (3, 14) are generally disposed within a common plane. See col. 9. Further, Johanpeter, discloses the 2<sup>nd</sup> screed plate pivots about the connective member 2<sup>nd</sup> end (52), while the connective member 1<sup>st</sup> and 2<sup>nd</sup> ends remain substantially stationary with respect to one another. See col. 10, lns. 13-65.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the paving vehicle of Burgin, with an edge-forming device, as taught by Johanpeter, in order to form angled shoulders, and crowned roadways.

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Shea # 3,029,716 discloses a paving machine control system. Shurtz # 3,557,672 discloses a screed assembly. Raymond # 5,215,404 discloses a screed unit for forming crowned roadways. Musil et al. # 5,356,238 discloses a paving with grade and slope control. Musil et al. # 5,401,115 discloses a paving with slope and grade control. Sovik # 6,238,134 discloses a pavement ramp and ramp making process.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond Addie whose telephone number is (703) 305-0135. The examiner can normally be reached on Monday-Friday from 8:00 am to 2:00 pm, 6-8 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will, can be reached on (703) 308-3870. The fax phone number for this Group is (703) 308-8623.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-1113.



**Thomas B. Will**  
**Supervisory Patent Examiner**  
**Group 3600**

**RWA**  
**6/10/2003**